

CLAIMS

What is claimed is:

1. An artificial glass eye, comprising at least two pre-formed glass components fused together.
2. The artificial glass eye of claim 1, further comprising at least four components fused together.
3. The artificial glass eye of claim 2, wherein the components comprise: a glass base component, a pupil component, an iris component, and a cornea component.
4. The artificial glass eye of claim 3, wherein the glass base component comprises a generally solid glass cylinder having a top end and a bottom end, wherein the top end further comprises a recess.
5. The artificial glass eye of claim 3, wherein the pupil component comprises a disk of colored glass.
6. The artificial glass eye of claim 5, wherein the iris component comprises a pressed colored glass disk, wherein the color represents the color of the iris.
7. The artificial glass eye of claim 3, wherein the cornea component comprises a pressed glass blank designed to avoid air being trapped between it and other components during fusion of the artificial glass eye.
8. The artificial glass eye of claim 5, wherein the pupil component comprises a pellet pressed disk of black glass or a bead of vitrified black glass.
9. The artificial glass eye of claim 6, further comprising a dusting of finely powdered glass applied onto the colored glass disk before the components are fused together, thereby producing multiple colors in the iris.
10. The artificial glass eye of claim 3, further comprising an outer ring component, wherein the outer ring component comprises a generally hollow cylindrical shape having an inner surface and an outer surface, and wherein the inner surface further comprises an inner area.
11. The artificial glass eye of claim 10, wherein the glass base component fits into the inner area of the outer ring component.
12. The artificial glass eye of claim 1, wherein the pre-formed components comprise a decorated glass base component and a cornea component.

13. The artificial glass eye of claim 12, wherein the decorated glass base component comprises a pressed glass blank having an outer surface and an inner surface, wherein the outer surface further comprises a flat area, and wherein graphics of the eye are contained thereon.

14. The artificial glass eye of claim 13, wherein the cornea component comprises a pressed glass blank.

15. The artificial glass eye of claim 13, wherein the graphics of the eye comprise a decal.

16. The artificial glass eye of claim 15, wherein the decal is selected from the group consisting of a screen printed ceramic temperature decal, a water slide decal and a heat release decal.

17. The artificial glass eye of claim 13, wherein the graphics of the eye comprise ceramic temperature vitreous enamels printed onto the flat area.

18. A decorated base component of an artificial eye, comprising a pressed glass blank having a convex outer surface, wherein the outer surface further comprises a flat area, and wherein graphics of the eye are contained thereon.

19. A method of manufacturing an artificial glass eye, said method comprising:
providing a carrier tray;
providing an alignment tray having one or more holes, wherein the holes are sized to match a specific artificial eye size;
placing the alignment tray on top of the carrier tray;
loading at least two pre-formed glass eye components together into one of the one or more alignment tray holes, wherein the eye components are configured so as to create the artificial eye when combined;
removing the alignment tray from the loaded carrier tray;
heating to fuse the glass eye components; and
cooling the fused artificial glass eye.

20. The method of claim 19, further comprising providing a carrier tray comprising a refractory material.

21. The method of claim 19, wherein the loading step further comprises loading (1) a glass base component having a convex outer surface, wherein the outer surface further comprises a flat area, and (2) a cornea component together into one of the one or more alignment tray holes,

such that the convex outer surface and flat area of the base component contact the cornea component.

22. The method of claim 21, further comprising decorating the flat area to represent the pupil and iris of the eye before placing the cornea component over the glass base component.

23. The method of claim 22, further comprising decorating the flat area with a printed decal or with ceramic temperature vitreous enamels.

24. The method of claim 19, further comprising loading at least four glass eye components into one of the one or more alignment tray holes, said components comprising: a glass base component, a pupil component, an iris component and a cornea component.

25. The method of claim 24, wherein loading the at least four glass eye components into one of the one or more alignment tray holes further comprises:

loading a glass base component, wherein the glass base component comprises a cylinder having a top end and a bottom end, such that the top end further comprises a recess;

placing into the recess of the glass base component the iris and pupil components, wherein the iris component is in contact with the glass base component and the pupil component contacts the iris component, such that the iris component is between the glass base component and the pupil component, and wherein the iris and pupil components are previously combined as a combined iris/pupil component or combined simultaneously with placing them into the recess; and placing the cornea component over the glass base component containing the pupil and iris components.

26. The method of claim 19, further comprising loading at least five glass eye components into one of the one or more alignment tray holes, said components comprising an outer ring component, a glass base component, a pupil component, an iris component and a cornea component.

27. The method of claim 26, wherein loading the at least five glass eye components into one of the one or more alignment tray holes further comprises:

loading an outer ring component into one of the one or more alignment tray holes; wherein the outer ring component comprises an inner surface and an outer surface, and wherein the inner surface further comprises within it an inner area;

loading a glass base component into the inner area of outer ring component, wherein the glass base component comprises a cylinder having a top end and a bottom end, such that the top end further comprises a recess;

placing into the recess of the glass base component the iris and pupil components, wherein the iris component is in contact with the glass base component and the pupil component contacts the iris component, such that the iris component is between the glass base component and the pupil component, and wherein the iris and pupil components are previously combined as a combined iris/pupil component or combined simultaneously with placing them into the recess; and

placing the cornea component over the glass base component containing the pupil component and the iris component.

28. The method of claim 19, further comprising repeating the steps to manufacture more than one artificial eye using more than one hole of the alignment tray.

29. A method of preparing a combined iris/pupil component for use in an artificial glass eye, said method comprising:

providing a carrier tray;

providing an iris alignment tray having one or more holes, wherein the holes are sized to match a specific iris size;

placing the iris alignment tray on top of the carrier tray; and loading an iris component into one of the one or more iris alignment tray holes;

providing a pupil alignment tray having one or more holes, wherein the holes are sized to match a specific pupil size;

placing the pupil alignment tray on top of the iris alignment tray so that the pupil component is properly positioned over the iris component;

loading a pupil component into one of the one or more pupil alignment tray holes, such that the pupil is loaded into the hole in the pupil alignment tray that aligns with the loaded hole in the iris alignment tray;

removing the iris alignment tray and the pupil alignment tray from the loaded carrier tray; and

heating to lightly fuse the iris and pupil components.